

NOTES:

1. CLEAR ZONE DISTANCES SHOWN APPLY TO ROADS WITH A POSTED SPEED OF 35 MPH OR LESS. CLEAR ZONE DISTANCES FOR ROADS POSTED AT GREATER THAN 35 MPH SHOULD BE DETERMINED ACCORDING TO CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
2. R/W, PAVEMENT, AND SHOULDER WIDTHS VARY. SEE STANDARD DRAWING 3-030B. CROSS-SECTION MAY BE ALTERED WHERE A STREAM OR WETLAND BORDERS THE ROAD.
3. SEE STANDARD DRAWING 8-010 FOR PLACEMENT OF UTILITIES.
4. WHERE BICYCLE LANES ARE REQUIRED ON ARTERIALS, PAVEMENT WIDTH AND R/W WIDTH SHALL BE INCREASED TO ACCOMMODATE THE BICYCLE LANES.
5. R/W WIDTH MAY BE REDUCED WHERE THE ENGINEER HAS DETERMINED THAT ADEQUATE PROVISIONS HAVE BEEN MADE FOR WALKWAYS, BIKEWAYS, SWALES OR OTHER FEATURES OUTSIDE THE R/W.
6. IN FILL SECTIONS AND AROUND CUL-DE-SACS, THE ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL DRAINAGE. SEE STANDARD DRAWING 4-145.
7. PREFERRED WALKWAY LOCATION WHERE R/W PERMITS. WHEN PLACED IN THIS LOCATION, A WIDENED SHOULDER FOR A WALKWAY WILL NOT BE REQUIRED. SEE TEXT TABLE 4-1 FOR SURFACING REQUIREMENTS. RECOMMEND TO DESIGN CROSS-SLOPE AT 1.5% OR LESS TO ENSURE ADA COMPLIANCE.



SNOHOMISH COUNTY PUBLIC WORKS

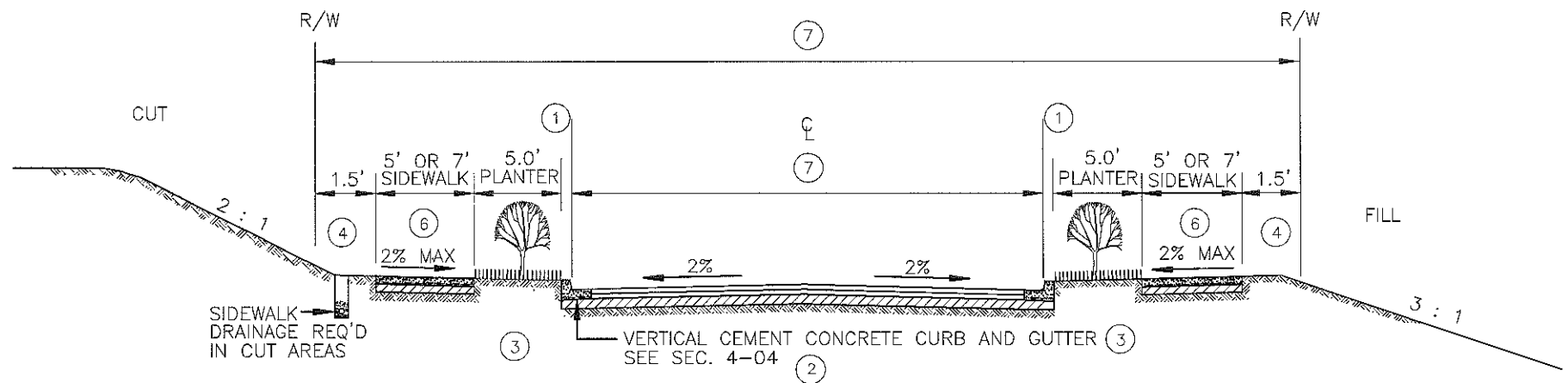
3-010

TYPICAL ARTERIAL ROAD – RURAL AREAS

APPROVED BY:

[Signature]
COUNTY ROAD ENGINEER

11/7/13
DATE



STANDARD ROADWAY SECTION

ARTERIALS PER SPECIFIC DESIGN. SEE CHAPTERS 3 AND 4.

NOTES:

1. URBAN CLEAR ZONE DISTANCE SHALL BE 2 FT. BEYOND THE FACE OF CURB FOR ROADS WITH A POSTED SPEED OF 35 MPH OR LESS. CLEAR ZONE DISTANCES FOR ROADS POSTED AT GREATER THAN 35 MPH SHOULD BE DETERMINED ACCORDING TO CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
2. SEE STANDARD DRAWING 8-020 FOR PLACEMENT OF UTILITIES.
3. REFER TO SECTION 4-01 FOR LANDSCAPING REQUIREMENTS. ALL LANDSCAPING WITHIN THE RIGHT OF WAY IS SUBJECT TO APPROVAL BY DPW.
4. THE R/W LINE SHALL BE AT LEAST 1.5 FEET BEHIND THE BACK OF SIDEWALK.
5. CROSS-SECTION MAY BE ALTERED WHERE A STREAM OR WETLAND BORDERS THE ROAD.
6. REFER TO TEXT SECTION 4-05 FOR SIDEWALK REQUIREMENTS. RECOMMEND TO DESIGN CROSS-SLOPE AT 1.5% OR LESS TO ENSURE ADA COMPLIANCE.
7. SEE STANDARD DRAWING 3-030B FOR WIDTH REQUIREMENTS.



SNOHOMISH COUNTY PUBLIC WORKS

3-020

TYPICAL ARTERIAL ROAD-URBAN AREAS

APPROVED BY:

COUNTY ROAD ENGINEER

11/7/13
DATE

ROAD STANDARDS – ARTERIALS

RURAL AREA STANDARDS ARE TO BE USED IN DESIGNING ROADS UTILIZING SHOULDERS AND OPEN DRAINAGE. THESE STANDARDS WILL GENERALLY BE REQUIRED IN RURAL AREAS AS DESIGNATED IN SNOHOMISH COUNTY'S COMPREHENSIVE PLANS. HOWEVER, THESE STANDARDS MAY ALSO BE ALLOWED FOR THOSE ROADS LYING INSIDE THE URBAN AREA BOUNDARY WHERE ZONING REQUIRES RESIDENTIAL LOT SIZES OF APPROXIMATELY ONE-HALF ACRE OR MORE AND CHARACTERIZED BY LARGE AREAS OF FARMLAND OR NATURAL AND UNDEVELOPED LANDS.

URBAN AREA STANDARDS ARE TO BE USED IN DESIGNING STREETS UTILIZING CURB AND GUTTER SECTIONS, SIDEWALKS AND ENCLOSED DRAINAGE. THESE STANDARDS WILL GENERALLY BE REQUIRED IN AREAS OF SUBURBAN OR HIGHER DENSITIES AS DESIGNATED IN SNOHOMISH COUNTY'S COMPREHENSIVE PLANS. HOWEVER, THESE STANDARDS MAY ALSO BE REQUIRED FOR THOSE ROADS IN RURAL AREAS WHERE ZONING PERMITS RESIDENTIAL LOT SIZES OF APPROXIMATELY ONE-THIRD ACRE OR LESS, COMMERCIAL OR INDUSTRIAL DEVELOPMENT, OR OTHER INTENSIVE LAND USES.

NOTES:

1. PAVEMENT WIDTH FOR RURAL ARTERIALS IS MEASURED FROM OUTSIDE EDGE OF SHOULDER TO OUTSIDE EDGE OF SHOULDER. URBAN ARTERIALS ARE MEASURED FROM FACE OF CURB TO FACE OF CURB. WIDTH VARIES DEPENDING ON WHETHER BICYCLE LANES OR WIDENED EXTERIOR LANES ARE CONSTRUCTED. SEE TEXT SECTION 4-08.
2. SHOULDER WIDTHS VARY. SEE TEXT SECTION 4-06.
3. DESIGNATED WALKWAYS SHALL BE DELINEATED IN ACCORDANCE WITH STANDARD DRAWING 4-160.
4. ALL PAVED SHOULDERS AND NON-SEPARATED WALKWAYS SHALL BE CONSTRUCTED TO THE SAME PAVEMENT SECTION AS REQUIRED FOR TRAVEL LANES.
5. BOULEVARDS (I.E., STREETS WITH MEDIANS) SHALL BE CONSTRUCTED WITH A MINIMUM OF 20 FEET OF CLEAR PAVEMENT ON EACH SIDE OF THE MEDIAN. IF PARKING IS ALLOWED, A MINIMUM OF 28 FEET SHALL BE CONSTRUCTED ON EACH SIDE OF THE MEDIAN TO ALLOW FOR 20 FEET OF CLEAR PAVEMENT PLUS 8 FEET OF PARKING.
6. ROADS IN COMMERCIAL/INDUSTRIAL AREAS SERVING SIGNIFICANT VOLUMES OF TRUCK TRAFFIC MAY REQUIRE ADDITIONAL WIDTH AND PAVEMENT DEPTH AS DETERMINED BY THE ENGINEER BASED ON SUPPORTING DATA SUBMITTED BY THE DEVELOPER.
7. NUMBER OF LANES TO BE DETERMINED FROM THE TRANSPORTATION ELEMENT OF THE COMPREHENSIVE PLAN AND THE TRANSPORTATION NEEDS REPORT.
8. ADDITIONAL R/W WIDTH MAY BE REQUIRED TO ACCOMMODATE 7-FOOT SIDEWALKS IN COMMERCIAL/INDUSTRIAL OR MULTI-FAMILY RESIDENTIAL ZONED AREAS.
9. IF BICYCLE LANES ARE REQUIRED. SEE TEXT SECTION 4-08. MINIMUM WIDTH SHALL BE 5 FT IN A CURB ROAD SECTION AND 4 FT IN A NON-CURB ROAD SECTION.
10. IF BICYCLE LANES ARE NOT REQUIRED, THE EXTERIOR LANE WIDTH ON URBAN ROADS SHALL BE 14 FT TO PROVIDE A SHARED TRAVEL LANE.

SEE TEXT CHAPTER 3

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SNOHOMISH COUNTY PUBLIC WORKS

3-030A

ROAD STANDARDS – ARTERIALS

APPROVED BY:

Stewart Harmon

COUNTY ROAD ENGINEER

5-29-03

DATE

RURAL ARTERIALS

MINIMUM WIDTH IN FEET

RURAL AREAS	R/W	PAVEMENT WIDTH ①	EXTERIOR LANE ⑩	INTERIOR LANE	SHOULDER SIDE/SIDE ②③④
MINOR COLLECTOR					
ADT < 400	70	36	11	---	7/7
ADT 400 to 2000	70	38	11	---	8/8
ADT > 2000	70	40	12	---	8/8
MAJOR COLLECTOR					
ADT < 2000	80	38	11	---	8/8
ADT > 2000 (2 Lane)	80	40	12	---	8/8
ADT > 2000 (4 Lane)	100	62	11	12	8/8

NOTE:

1. SEE STD. DRAWING
3-030A FOR NOTES.

URBAN ARTERIALS

MINIMUM WIDTH IN FEET

URBAN AREAS ⑤⑥⑦	R/W ⑧	PAVEMENT WIDTH ①	BICYCLE LANE ⑨	EXTERIOR LANE ⑩	INTERIOR LANE	LEFT TURN LANE
COLLECTOR ARTERIAL						
(2 Lanes)	70	28-34	5	12-14	---	---
(3 Lanes)	70	40-46	5	12-14	---	12
(4 Lanes)	80	50-56	5	12-14	11	---
(5 Lanes)	92	62-68	5	12-14	11	12
MINOR ARTERIAL						
(2 Lanes)	80	28-34	5	12-14	---	---
(3 Lanes)	80	40-46	5	12-14	---	12
(4 Lanes)	80	50-56	5	12-14	11	---
(5 Lanes)	92	62-68	5	12-14	11	12
PRINCIPAL ARTERIAL						
(4 Lanes)	100	52-58	5	12-14	12	---
(5 Lanes)	100	64-70	5	12-14	12	12
(6 Lanes)	106	76-82	5	12-14	12	---
(7 Lanes)	118	88-94	5	12-14	12	12

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SNOHOMISH COUNTY PUBLIC WORKS

3-030B

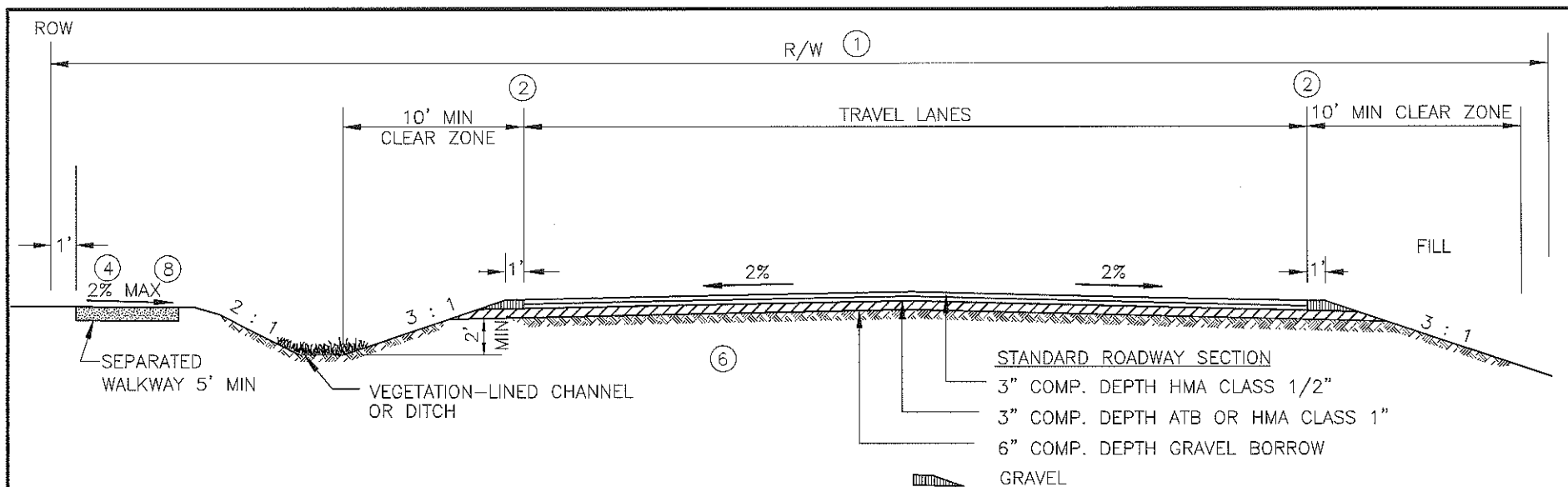
ROAD STANDARDS – ARTERIALS

APPROVED BY:

Steve Morrison 5-29-03

COUNTY ROAD ENGINEER

DATE



NOTES:

1. RIGHT OF WAY WIDTH WILL VARY DEPENDING ON LOCATION AND OWNERSHIP OF DRAINAGE AND PEDESTRIAN FACILITIES.
2. CLEAR ZONE DISTANCES SHOWN APPLY TO ROADS WITH A POSTED SPEED OF 35 MPH OR LESS. CLEAR ZONE DISTANCES FOR ROADS POSTED AT GREATER THAN 35 MPH SHOULD BE DETERMINED ACCORDING TO CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
3. CROSS-SECTION MAY BE ALTERED WHERE A STREAM OR WETLAND BORDERS THE ROAD.
4. A WALKWAY IS NOT REQUIRED FOR ACCESS ROADS SERVING 90 ADT OR LESS AND HAVING NO POTENTIAL FOR CONNECTIVITY.
5. IN FILL SECTIONS AND AROUND CUL-DE-SACS, THE ENGINEER MAY REQUIRE A THICKENED EDGE TO CONTROL EROSION. SEE STANDARD DRAWING 4-145.
6. SEE STANDARD DRAWING 8-010 FOR PLACEMENT OF UTILITIES.
7. SEE STD DWGS 3-060 & 3-065 FOR ADDITIONAL SPECIFICATIONS. INDUSTRIAL/COMMERCIAL ROADS SERVING SIGNIFICANT VOLUMES OF TRUCK TRAFFIC MAY REQUIRE ADDITIONAL WIDTH AND PAVEMENT DEPTH AS DETERMINED BY THE ENGINEER BASED ON DATA SUBMITTED BY THE DEVELOPER.
8. PREFERRED WALKWAY LOCATION WHERE R/W PERMITS. WHEN PLACED IN THIS LOCATION, A WIDENED SHOULDER FOR A WALKWAY WILL NOT BE REQUIRED. SEE TEXT TABLE 4-1 FOR SURFACING REQUIREMENTS. RECOMMEND TO DESIGN CROSS-SLOPES AT 1.5% OR LESS TO ENSURE ADA COMPLIANCE.

SEE TEXT CHAPTER 3



SNOHOMISH COUNTY PUBLIC WORKS

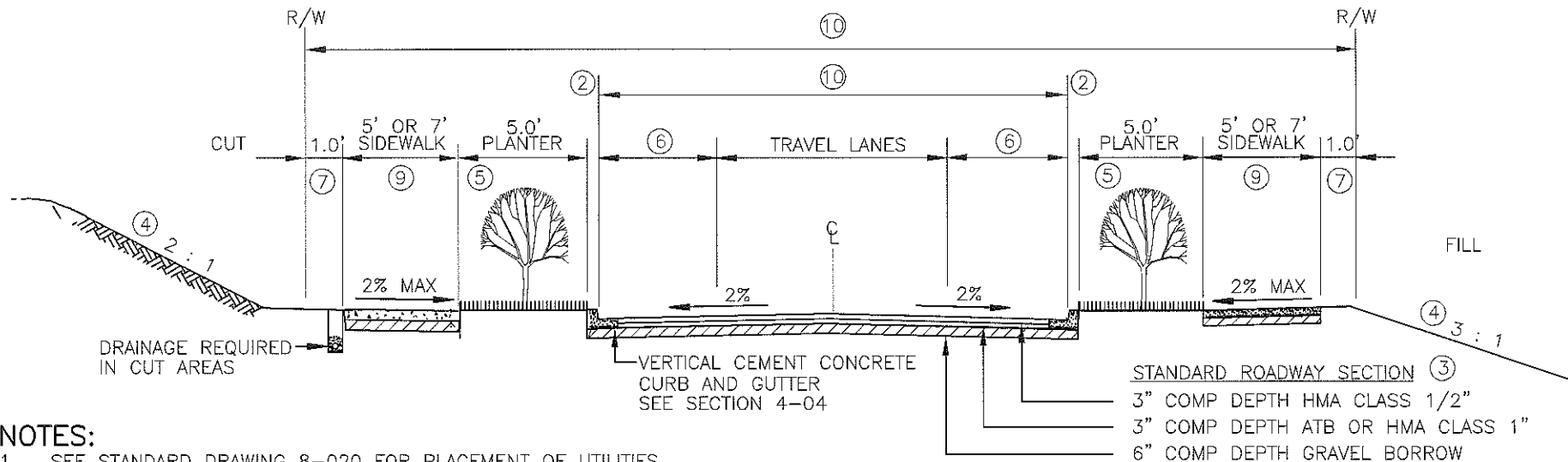
3-040

TYPICAL NON-ARTERIAL ROAD-RURAL AREAS

APPROVED BY:

COUNTY ROAD ENGINEER

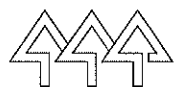
1/7/13
DATE



NOTES:

1. SEE STANDARD DRAWING 8-020 FOR PLACEMENT OF UTILITIES.
2. URBAN CLEAR ZONE DISTANCE SHALL BE 2 FT. BEYOND THE FACE OF CURB FOR ROADS WITH A POSTED SPEED OF 35 MPH OR LESS. CLEAR ZONE DISTANCES FOR ROADS POSTED AT GREATER THAN 35 MPH SHOULD BE DETERMINED ACCORDING TO CHAPTER 7 OF THE WSDOT DESIGN MANUAL.
3. INDUSTRIAL/COMMERCIAL ROADS SERVING SIGNIFICANT VOLUMES OF TRUCK TRAFFIC MAY REQUIRE ADDITIONAL WIDTH AND PAVEMENT DEPTH AS DETERMINED BY THE ENGINEER BASED ON DATA SUBMITTED BY THE DEVELOPER.
4. FOR ACCESS AND SUBCOLLECTOR ROADS, FILL SLOPES MAY BE 2:1 MAX. AND CUT SLOPES MAY BE 1-1/2:1 MAX.
5. REFER TO SECTION 4-01 FOR LANDSCAPING REQUIREMENTS. ALL LANDSCAPING WITHIN THE RIGHT OF WAY IS SUBJECT TO APPROVAL BY DPW.
6. AN 8 FT PARKING LANE MAY BE REQUIRED ON ONE OR BOTH SIDES, SEE STANDARD DRAWING 3-065.
7. THE R/W LINE SHALL BE AT LEAST 1.0 FEET BEHIND THE BACK OF SIDEWALK.
8. CROSS-SECTION MAY BE ALTERED WHERE A STREAM OR WETLAND BORDERS THE ROAD.
9. REFER TO TEXT SECTION 4-05 FOR SIDEWALK REQUIREMENTS. RECOMMEND TO DESIGN CROSS-SLOPE AT 1.5% OR LESS TO ENSURE ADA COMPLIANCE.
10. FOR RESIDENTIAL ROADS SERVING 90 ADT OR LESS AND HAVING NO POTENTIAL FOR CONNECTIVITY, SIDEWALKS AND PLANTERS ARE NOT REQUIRED. HOWEVER, WHERE SAFE WALKING CONDITIONS FOR STUDENTS ARE IMPOSED PURSUANT TO RCW 58.17.060, 58.17.110 OR APPLICABLE COUNTY CODES, A SIDEWALK ONLY WILL BE REQUIRED ON ONE SIDE OF THE ROAD.
11. SEE STANDARD DRAWING 3-065 FOR WIDTH REQUIREMENTS. IF THE ROAD IS A DESIGNATED BIKEWAY ROUTE, BICYCLE LANES MAY BE REQUIRED IN ADDITION TO, OR IN PLACE OF, THE PARKING LANES. SEE TEXT SECTION 4-08.

SEE TEXT CHAPTERS 3 AND 4



SNOHOMISH COUNTY PUBLIC WORKS

3-050

TYPICAL NON-ARTERIAL ROAD - URBAN AREAS

APPROVED BY:

COUNTY ROAD ENGINEER

DATE

1/7/13

VOLUME ①	PUBLIC OR PRIVATE	DESIGN SPEED (MPH)	SURFACE WIDTH (FT) ②	SURFACE	WALKWAY	ROW WIDTH (FT)	STANDARD DRAWING
LOW VOLUME ACCESS (1-90 ADT)	PRIVATE	20	20	GRAVEL	NONE ③	④	3-080
LOCAL ACCESS (1-90 ADT)	PUBLIC	25 ⑤	24	PAVED	NONE ③	44-60 ⑥	3-040
SUBCOLLECTOR (91-2000 ADT)	EITHER	25 ⑤	24	PAVED	5 FT SEPARATED	44-60 ⑥	3-040
COLLECTOR (2001-3000 ADT)	EITHER	30	30	PAVED	5 FT SEPARATED	50-60 ⑥	3-040

NOTES:

1. ADT VOLUMES ARE TYPICAL THRESHOLDS ONLY. THE COUNTY ENGINEER MAY MODIFY A ROAD STANDARD BASED ON SITE CONDITIONS, TRAFFIC VOLUME, ULTIMATE DEVELOPMENT POTENTIAL OF AN AREA OR OTHER RELEVANT FACTORS.
2. NO PARKING IS ALLOWED.
3. A WALKWAY IS NOT TYPICALLY REQUIRED FOR ACCESS ROADS SERVING 90 ADT OR LESS THAT HAVE NO POTENTIAL FOR CONNECTIVITY. SPECIFIC CIRCUMSTANCES WILL BE EVALUATED DURING PROJECT REVIEW.
4. MINIMUM 30 FT EASEMENT.
5. MAY BE REDUCED TO 20 MPH FOR A CUL-DE-SAC ROAD WITH NO TANGENT LONGER THAN 250 FEET OR FOR OTHER CIRCUMSTANCES APPROVED BY THE COUNTY ENGINEER.
6. RIGHT-OF-WAY WIDTH MAY VARY DEPENDING ON LOCATION AND OWNERSHIP OF DRAINAGE AND PEDESTRIAN FACILITIES.



SNOHOMISH COUNTY PUBLIC WORKS

3-060

ROAD STANDARDS - NON-ARTERIALS (RURAL)

APPROVED BY:

[Signature]

COUNTY ROAD ENGINEER

4/6/09

DATE

NOTES:

1. ROAD STANDARDS BASED ON "RESIDENTIAL STREETS," 3RD EDITION, PUBLISHED JOINTLY BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS, THE NATIONAL ASSOCIATION OF HOME BUILDERS AND THE URBAN LAND INSTITUTE.
2. SEE EDDS SECTION 3-02.B FOR DESCRIPTION OF NON-ARTERIAL ROAD CLASSIFICATIONS.
3. PARKING RESTRICTED TO ONE SIDE.
4. MAY BE REDUCED UPON APPROVAL OF THE ENGINEER. REFER TO SECTION 3-06.
5. BICYCLE LANES MAY BE REQUIRED ON ROADS THAT ARE DESIGNATED BIKEWAY ROUTES. PAVEMENT AND R/W WIDTH SHALL BE WIDENED AS NECESSARY. SEE TEXT SECTION 4-08.
6. RIGHT OF WAY WIDTH MAY VARY. SEE TEXT SECTION 3-03B.
7. FOR RESIDENTIAL ROADS SERVING 90 ADT OR LESS AND HAVING NO POTENTIAL FOR CONNECTIVITY, SIDEWALKS AND PLANTERS ARE NOT REQUIRED. HOWEVER, WHERE SAFE WALKING CONDITIONS FOR STUDENTS ARE IMPOSED PURSUANT TO RCW 58.17.060, 58.17.110 OR APPLICABLE COUNTY CODES, A SIDEWALK ONLY WILL BE REQUIRED ON ONE SIDE OF THE ROAD

PUBLIC AND PRIVATE ROAD STANDARD - URBAN

② ROAD CLASSIFICATION	DESIGN SPEED (MPH)	PAVEMENT WIDTH	TRAVEL LANES	PARKING LANE	PLANTER WIDTH	SIDEWALK WIDTH	⑤⑥ R/W WIDTH	SEE STD DRAWING
LOCAL ACCESS	25 ④	24'	2x12'	NONE	5' MIN.	5' MIN. ⑦	47'-51'	3-050
RESIDENTIAL	25 ④	28'	2x10'	1x8' ③	5' MIN. ⑦	5' MIN.	51'-55'	3-050
COLLECTOR	30 ④	36'	2x10'	2x8'	5' MIN.	5' MIN.	59'-63'	3-050

SEE TEXT CHAPTER 3



SNOHOMISH COUNTY PUBLIC WORKS

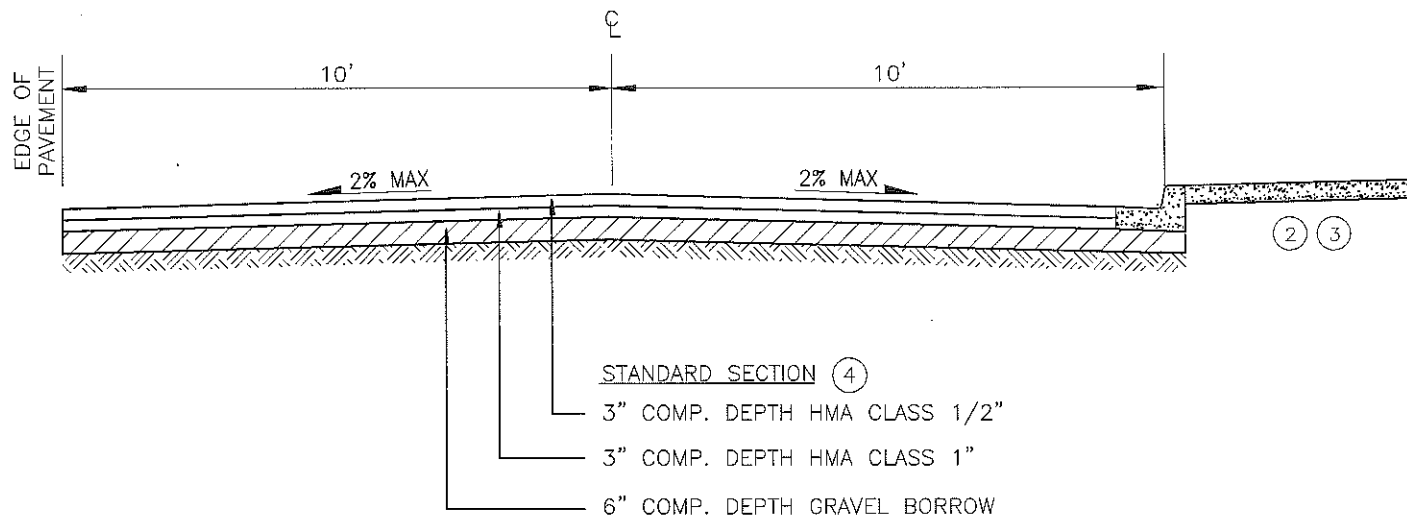
3-065

ROAD STANDARDS - NON-ARTERIALS (URBAN)

APPROVED BY:

COUNTY ROAD ENGINEER

6/5/09
DATE



NOTES:

1. A DRIVE AISLE MUST MEET FIRE LANE SPECIFICATIONS IN SCC 30.53A.512, EXCEPT AS NOTED IN EDDS 3-05.A.
2. PEDESTRIAN FACILITY REQUIREMENTS FOR DEVELOPMENT ARE SPECIFIED IN SCC 30.24.080. SHOWN ABOVE FOR ILLUSTRATION, PEDESTRIAN FACILITIES MAY BE LOCATED BUT ARE NOT REQUIRED ADJACENT TO DRIVE AISLE.
3. ANY PEDESTRIAN FACILITY ADJACENT TO A DRIVE AISLE MUST BE SEPARATED BY A VERTICAL OR ROLLED CURB. REFER TO EDDS 4-04.B FOR ACCEPTABLE ROLLED CURB LOCATIONS.
4. INDUSTRIAL/COMMERCIAL DRIVE AISLES SERVING SIGNIFICANT VOLUMES OF TRUCK TRAFFIC MAY REQUIRE ADDITIONAL WIDTH AND PAVEMENT DEPTH AS DETERMINED BY THE ENGINEER BASED ON DATA SUBMITTED BY THE DEVELOPER.



SNOHOMISH COUNTY PUBLIC WORKS

3-066

DRIVE AISLE

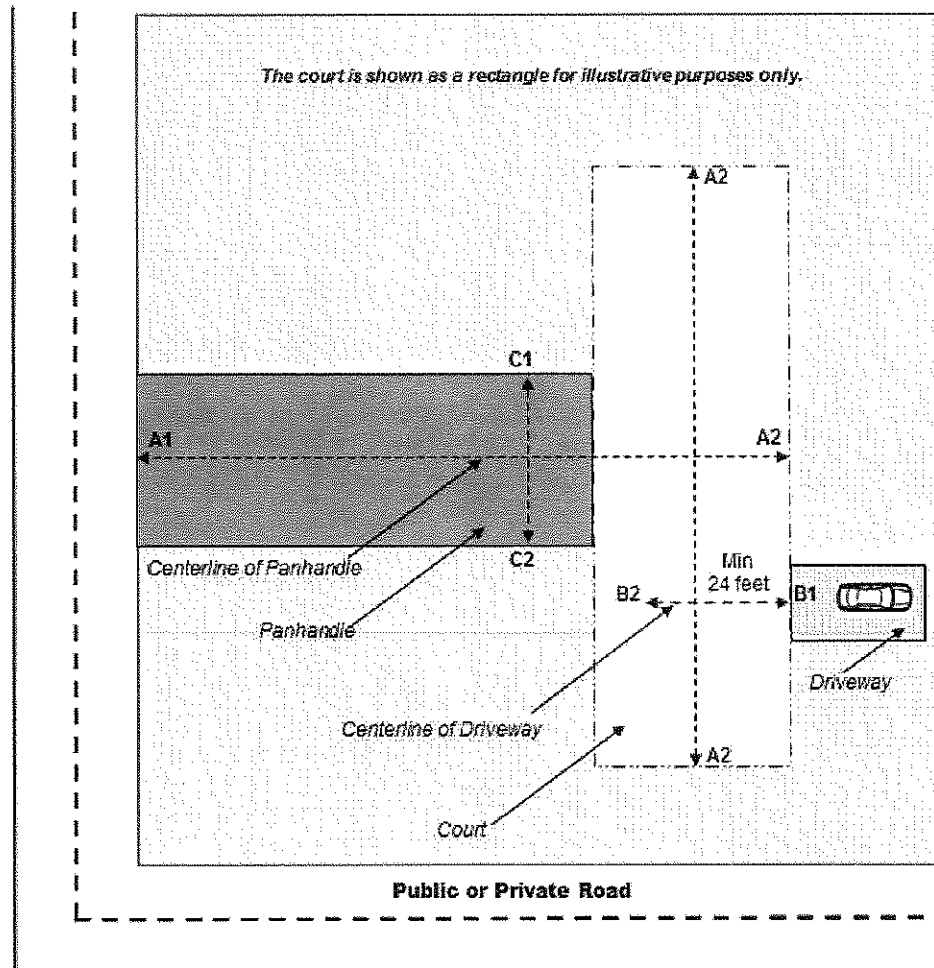
APPROVED BY:

[Signature]
COUNTY ROAD ENGINEER

4/7/13
DATE

NOTES:

1. SEE EDDS SECTION 3-05.D FOR DETAILS.
2. MAXIMUM LENGTH IS 150 FT MEASURED A1 TO ANY A2 ALONG CENTERLINES.
3. SHARED COURT SHALL BE LOCATED ENTIRELY WITHIN TRACT OR EASEMENT UNLESS DEVELOPMENT (COMMERCIAL, MULTI-FAMILY OR SFDU) IS ON ONE SITE.
4. SHARED COURT SHALL PROVIDE MIN. 24 FT BACKUP DISTANCE FROM END OF ANY DRIVEWAY, MEASURED B1 TO B2.
5. THE SHARED COURT PANHANDLE SHALL MEET THE MINIMUM WIDTH REQUIREMENT FOR A FIRE LANE PER SCC 30.53A.512, MEASURED C1 TO C2.



NTS



SNOHOMISH COUNTY PUBLIC WORKS

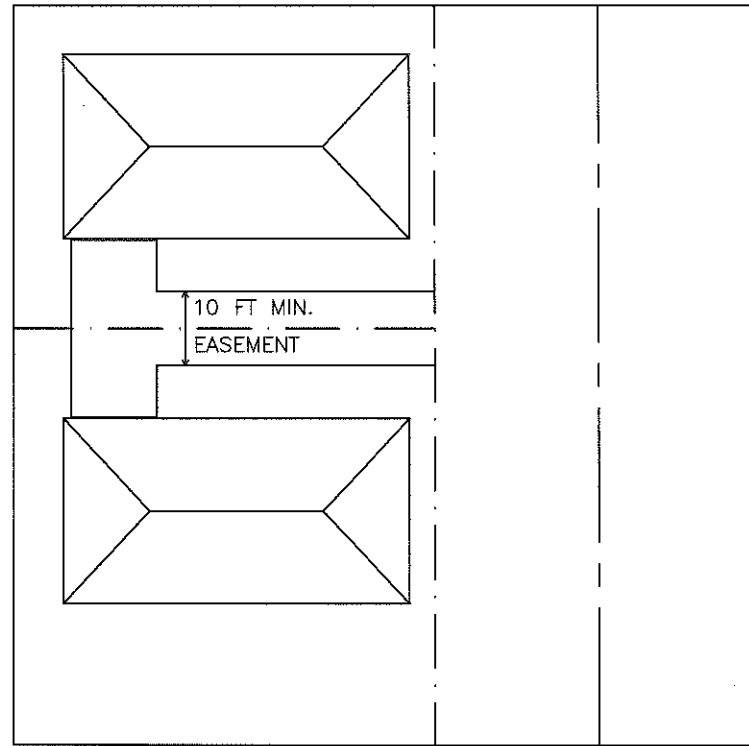
3-067

SHARED COURT

APPROVED BY:

[Signature]
COUNTY ROAD ENGINEER

11/7/13
DATE



SHARED DRIVEWAY

NTS

NOTES:

1. SEE EDDS SECTION 3--05.D FOR DETAILS. GENERAL DRIVEWAY STANDARDS ARE IN CHAPTER 2. DRIVEWAY SECTIONS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE ASPHALT OR CONCRETE.
2. SHARED DRIVEWAYS SHALL SERVE 2 LOTS THAT HAVE NO MORE THAN 2 DWELLING UNITS OR 2 GROUP U OCCUPANCIES PER LOT.
3. SHALL HAVE A MINIMUM CONSTRUCTED WIDTH OF 10 FT.
4. SHARED DRIVEWAYS SHALL HAVE A MIN. 10 FT SHARED DRIVEWAY ACCESS EASEMENT AND A MAINTENANCE DECLARATION RECORDED WITH THE COUNTY AUDITOR.
5. PEDESTRIAN FACILITIES ARE NOT REQUIRED WITH DRIVEWAYS UNLESS NEEDED FOR THE INTERNAL PEDESTRIAN FACILITY NETWORK. REFER TO SCC 30.24.080.



SNOHOMISH COUNTY PUBLIC WORKS

3-068

SHARED DRIVEWAY

APPROVED BY:

[Signature]

COUNTY ROAD ENGINEER

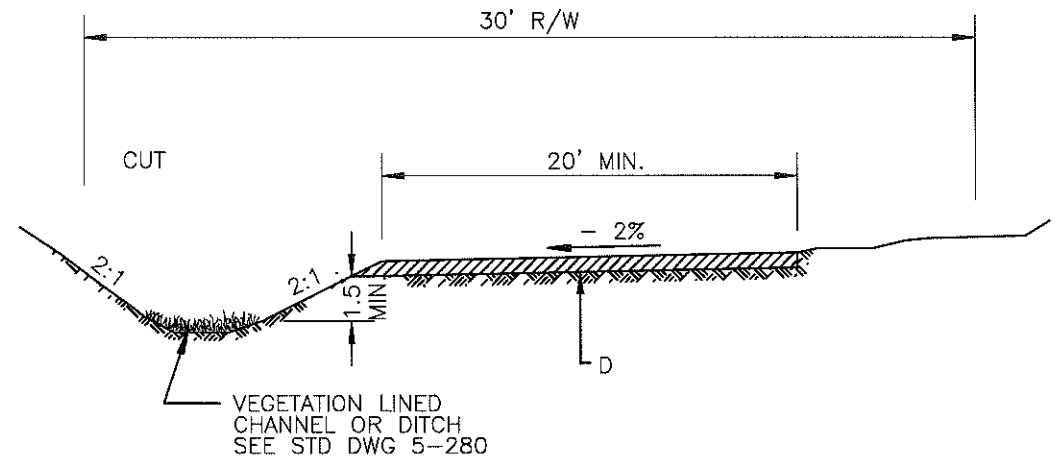
1/7/13

DATE

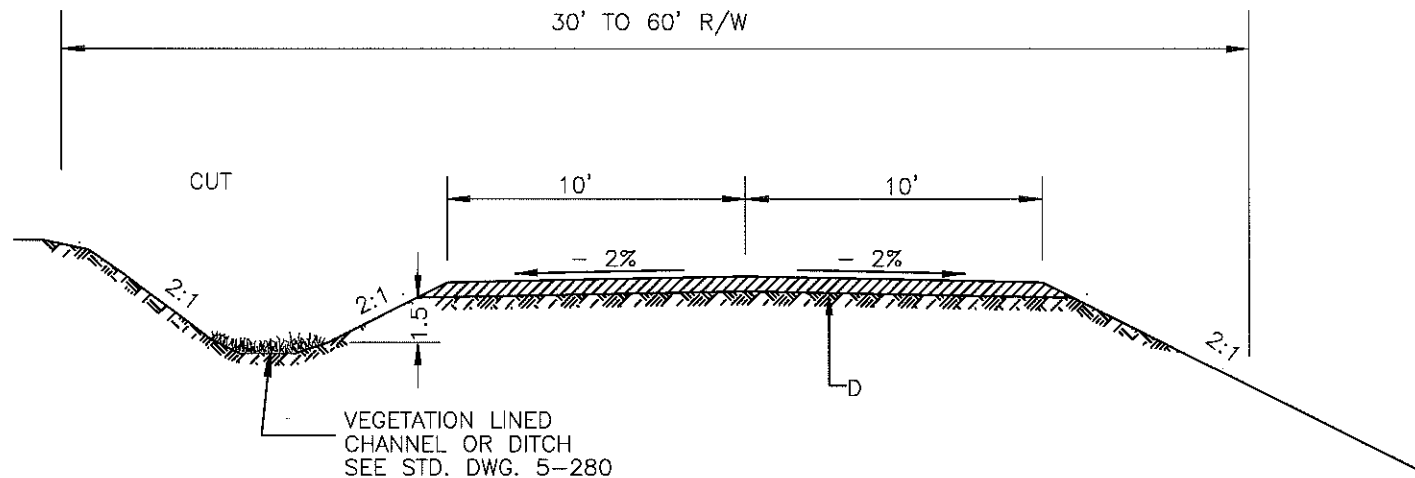
NOTES:

1. REFER TO STANDARD DRAWING 3-075 FOR SECTIONS A AND B, AND FOR SURFACING DEPTH D.

SEE TEXT SECTION 3-05



SECTION A



SECTION B

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SNOHOMISH COUNTY PUBLIC WORKS

3-070

TRAIL ACCESS PERMIT ROAD

APPROVED BY:

Stewart Morrison 4-17-03

COUNTY ROAD ENGINEER

DATE

# LOTS	R/W	SECTION	
1	LESS THAN 20'		INADEQUATE R/W WIDTH
	20' - 30'	SECTION A	6" GRAVEL BORROW OR PIT-RUN GRAVEL
	31' TO 60'	SECTION B	6" GRAVEL BORROW OR PIT-RUN GRAVEL
2	LESS THAN 30'	--	INADEQUATE R/W WIDTH
	31' TO 60'	SECTION B	6" GRAVEL BORROW OR PIT-RUN GRAVEL PLUS 2 1/2" CSBC GRAVEL PLUS 1 1/2" CSTC GRAVEL AND PAVED APRON
3	LESS THAN 30'	--	INADEQUATE R/W WIDTH
	31' TO 60'	SECTION B	6" GRAVEL BORROW OR PIT-RUN GRAVEL PLUS 2 1/2" CSBC GRAVEL PLUS 1 1/2" CSTC GRAVEL AND PAVED APRON
4 (URBAN)	LESS THAN 30'	--	INADEQUATE R/W WIDTH
4 - 8 (RURAL)	31' TO 60'	SECTION B	6" GRAVEL BORROW OR PIT-RUN GRAVEL PLUS 2 1/2" CSBC GRAVEL PLUS 1 1/2" CSTC GRAVEL AND PAVED APRON
5+ (URBAN)	ROAD IMPROVEMENT REQUIREMENTS DETERMINED BY PUBLIC WORKS.		
9+ (RURAL)			

NOTES:

- SEE STANDARD DRAWING 3-070 FOR ROADWAY SECTIONS.
- APPLIES TO EXISTING LOTS CREATED PRIOR TO JULY 1, 1992. NUMBER OF LOTS REFERS TO THE TOTAL NUMBER OF EXISTING LOTS THAT WILL RECEIVE ACCESS VIA THE COUNTY R/W THROUGH THE TRAIL PERMIT PROCESS.
- ANY PROPOSED ACCESS VIA COUNTY R/W TO ANY LOT SUBDIVIDED ON OR AFTER JULY 1, 1992 SHALL BE EVALUATED ON A CASE BY CASE BASIS BY PUBLIC WORKS.

SEE TEXT SECTION 3-05

D.L.D.: 3/17/00
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SNOHOMISH COUNTY PUBLIC WORKS

3-075

TRAIL ACCESS PERMIT ROAD DIMENSIONS

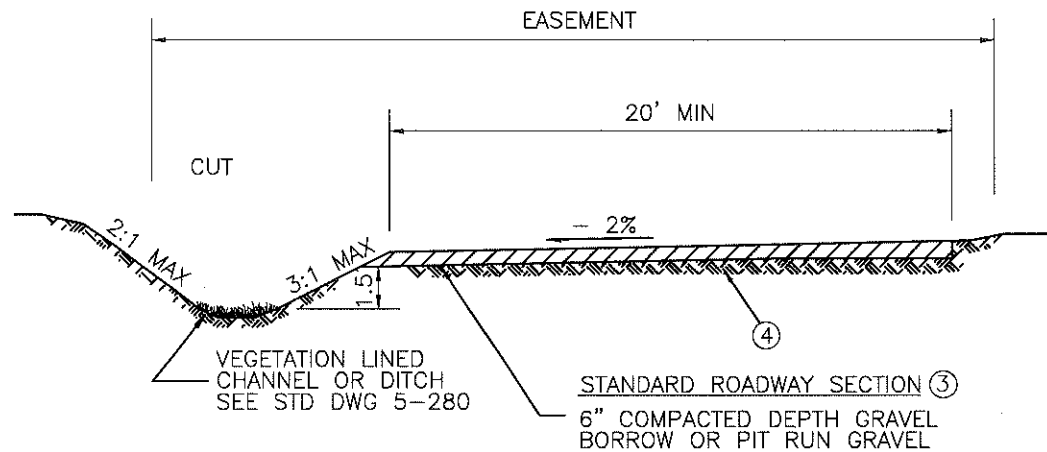
APPROVED BY:

Stewart E. Mowman 2-7-03

COUNTY ROAD ENGINEER

DATE

90 ADT OR LESS



NOTES:

1. ROAD SHALL BE PRIVATELY MAINTAINED BY A HOMEOWNERS ASSOCIATION.
2. REFER TO STD DWG 3-060 FOR GEOMETRIC STANDARDS.
3. ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (SOILS TESTS, ETC.)
4. SUBGRADE SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SECTION 2-03.3(14)C OF THE WSDOT/APWA SPECIFICATIONS (METHOD B). SURFACING MATERIALS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY (MODIFIED PROCTOR).
5. PRIVATE ROAD INTERSECTIONS SHALL COMPLY WITH STD DWG 3-100.

SEE TEXT SECTION 3-05

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SNOHOMISH COUNTY PUBLIC WORKS

3-080

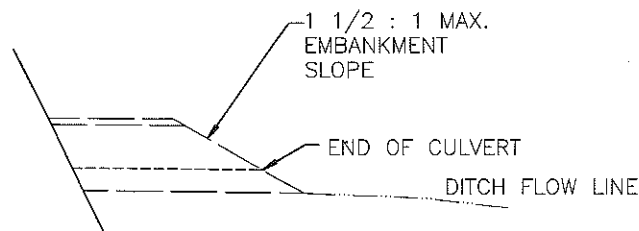
PRIVATE LOW VOLUME ACCESS ROAD (RURAL)

APPROVED BY:

Steven C. Morrison 4-17-03

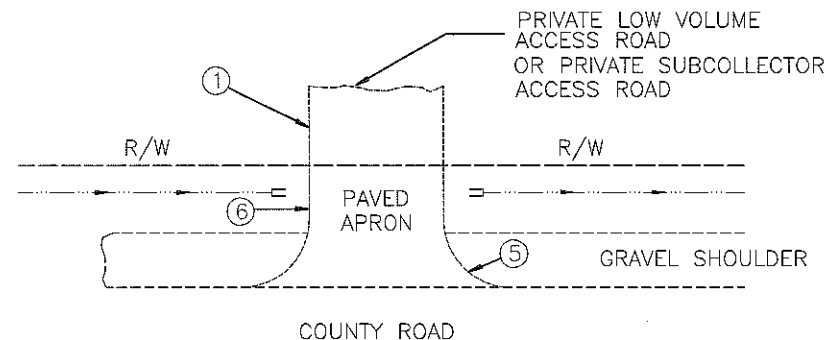
COUNTY ROAD ENGINEER

DATE



DETAIL FOR SECTION A

② ③ ④



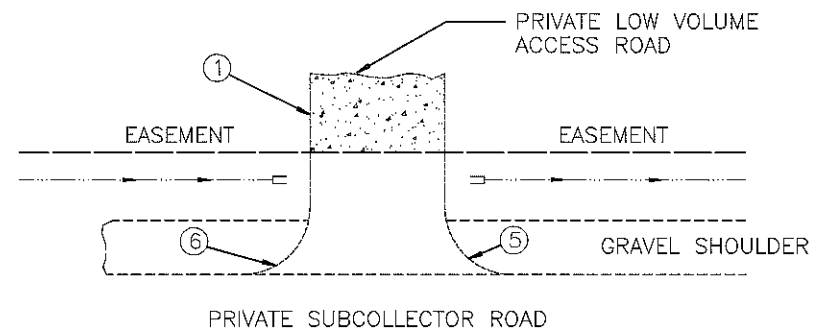
SECTION A

INTERSECTION WITH COUNTY ROAD

NOTES:

1. ALL SURFACE DRAINAGE FROM THE PRIVATE ROAD MUST BE DIRECTED FROM THE ROAD TO THE THE OPEN DITCH. NO SURFACE DRAINAGE SHALL FLOW ONTO THE COUNTY ROAD.
2. CULVERT PIPE SHALL BE 12 INCHES MINIMUM DIAMETER AND LARGER IF DRAINAGE REQUIRES. BEVEL CULVERT ENDS TO MATCH SIDESLOPES.
3. COVER DEPTHS LESS THAN 12" REQUIRE APPROVAL BY THE ENGINEER.
4. A DRIVEWAY CULVERT HEADWALL, SUBJECT TO APPROVAL BY THE ENGINEER, MAY BE USED IN LIEU OF THE 1-1/2 : 1 MAX. SIDESLOPE.
5. MINIMUM RADII VARY. SEE STANDARD DRAWING 2-010.
6. A PAVED APRON IS REQUIRED AT ALL INTERSECTIONS WITH COUNTY ROADS. PAVED APRON SECTION SHALL BE EQUIVALENT TO STANDARD ROADWAY SECTION FOR PRIVATE SUBCOLLECTOR ROAD (SEE STD DWG 3-090) OR BETTER.
7. ADDITIONAL PAVEMENT THICKNESS MAY BE REQUIRED FOR HEAVY VEHICLE TRAFFIC.

SEE TEXT SECTION 3-05 & 5-05.L



SECTION B

INTERSECTION WITH PRIVATE SUBCOLLECTOR ACCESS ROAD



SNOHOMISH COUNTY PUBLIC WORKS

3-100

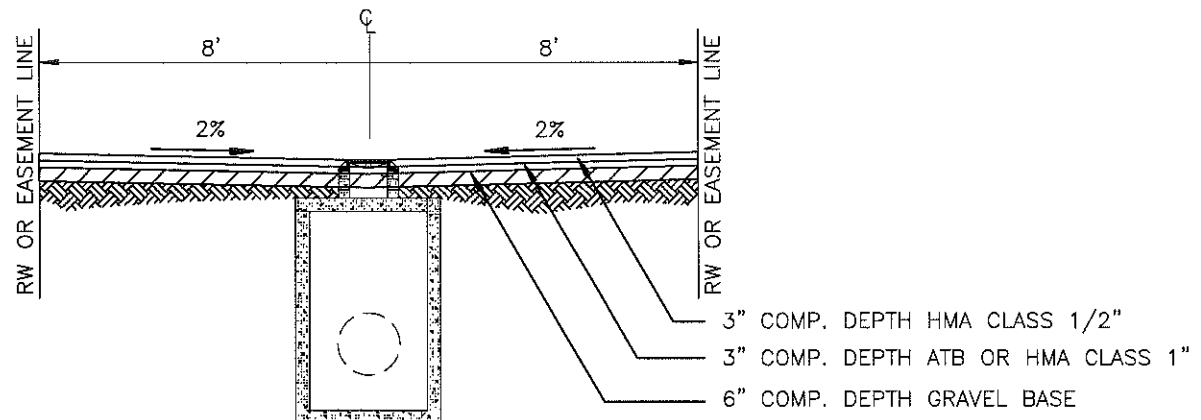
PRIVATE ROAD INTERSECTIONS (RURAL)

APPROVED BY:

COUNTY ROAD ENGINEER

DATE

11/7/13



NOTES:

1. MINIMUM WIDTH SHALL BE 16 FT UNLESS DESIGNATED A FIRE LANE, WHICH REQUIRES A 20 FT MINIMUM WIDTH. REFER TO EDDS 3-01.C.
2. CATCHBASIN, GRATE AND PIPE TO BE INSTALLED PER DRAINAGE PLAN.
3. PARKING AND PEDESTRIAN FACILITIES ARE PROHIBITED IN AN ALLEY.
4. ALLEYS PROPOSED IN PUBLIC RIGHT OF WAY MUST BE APPROVED BY THE COUNTY ENGINEER.



SNOHOMISH COUNTY PUBLIC WORKS

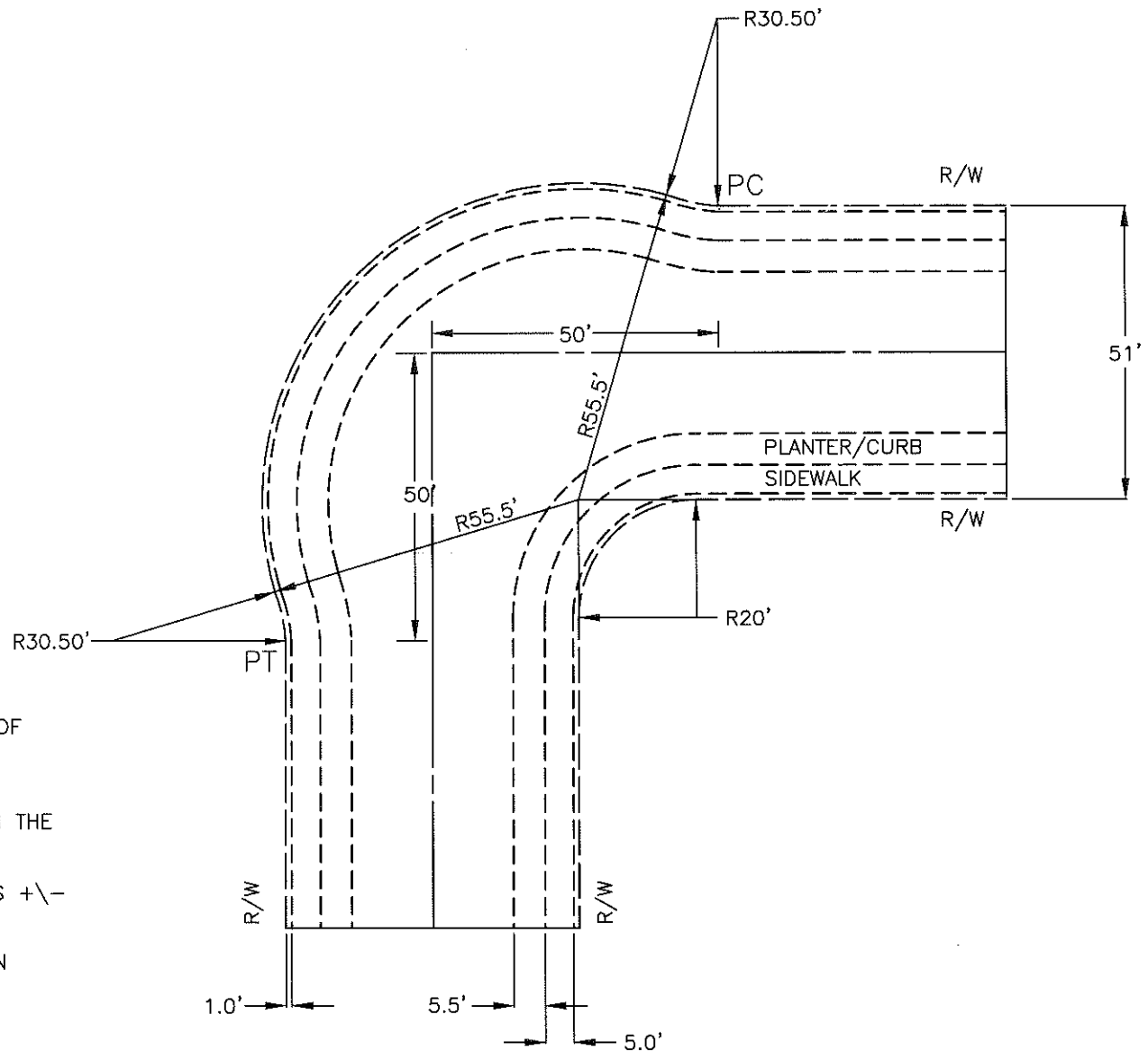
3-102

ALLEY

APPROVED BY:

[Signature]
COUNTY ROAD ENGINEER

11/7/13
DATE



NOTES:

1. INTERSECTION BULBS MAY BE USED IN LIEU OF HORIZONTAL CURVES FOR CERTAIN LOW-SPEED DESIGNS. REFER TO TEXT TABLE 3-4.
2. A MINIMUM 50' TANGENT IS REQUIRED FROM THE POINT OF INTERSECTION OF THE CENTERLINES.
3. INTERSECTION ANGLE SHALL BE 90 DEGREES \pm 10 DEGREES.
4. RADII SHOWN APPLY FOR A 51-FOOT URBAN NON-ARTERIAL R/W.

SEE TEXT SECTION 3-06.

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SNOHOMISH COUNTY PUBLIC WORKS

3-105

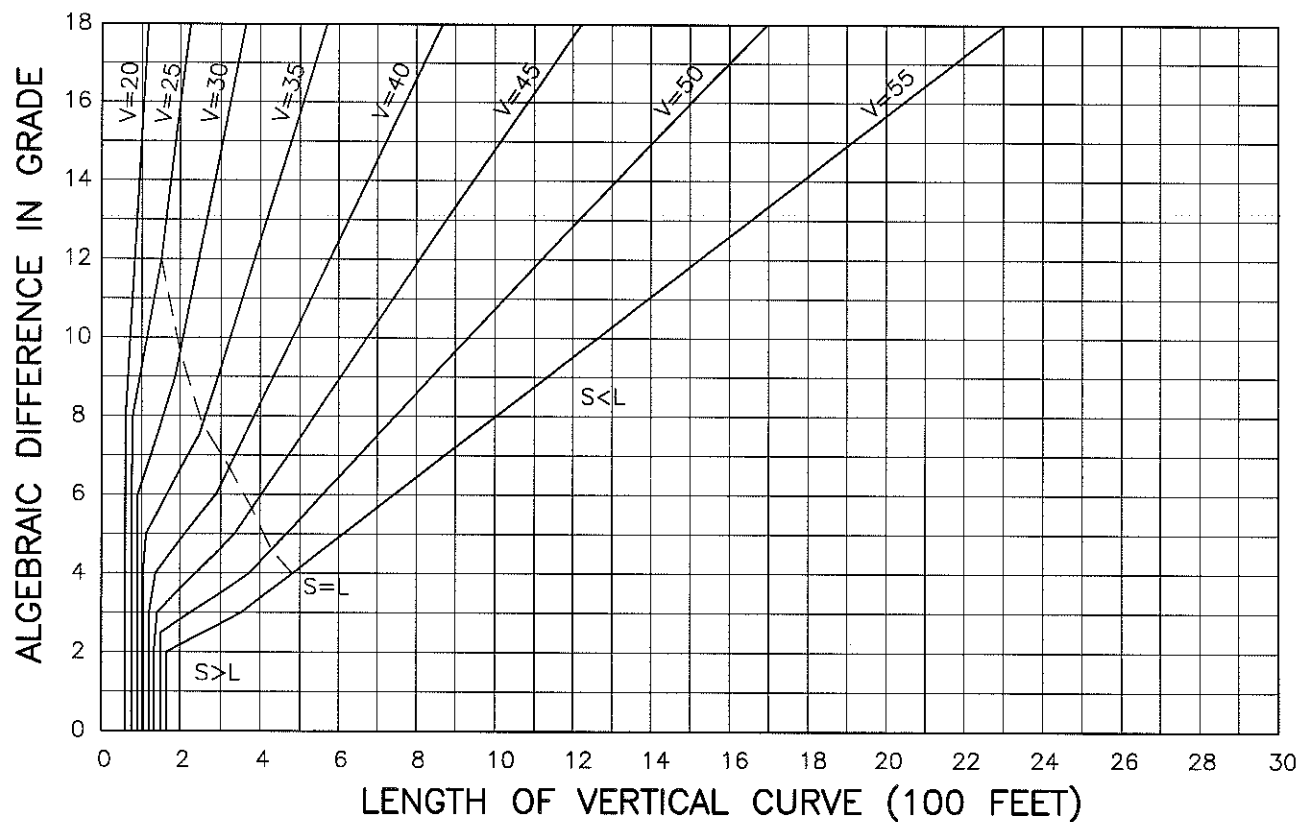
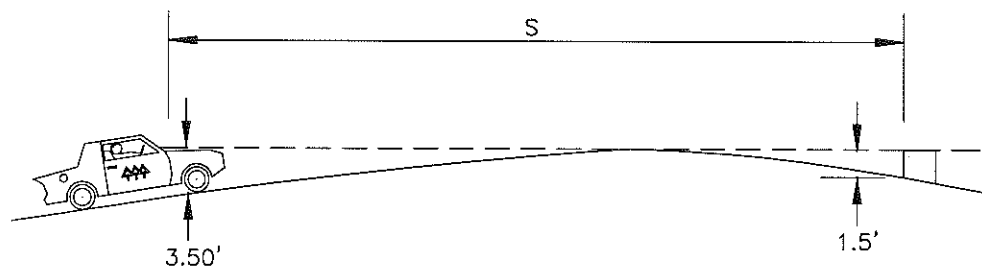
90° INTERSECTION ELBOW

APPROVED BY:

Steve Morris 2-25-03

COUNTY ROAD ENGINEER

DATE



WHEN $S > L$

$$L = 2S - \frac{1917}{A}$$

WHEN $S < L$

$$L = \frac{AS^2}{1917}$$

L = CURVE LENGTH (FEET)

A = ALGEBRAIC GRADE DIFFERENCE (PERCENT)

S = SIGHT DISTANCE (FEET)

DESIGN SPEED (MPH)	DESIRABLE MINIMUM STOPPING DISTANCE (FEET)	MINIMUM LENGTH (FEET)
20	115	60
25	155	75
30	200	90
35	250	105
40	305	120
45	360	135
50	425	150
55	495	165

NOTES:

1. L=MINIMUM LENGTH OF CURVE BASED ON MINIMUM STOPPING SIGHT DISTANCE.

SEE TEXT CHAPTER 3

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SNOHOMISH COUNTY PUBLIC WORKS

3-110

CREST VERTICAL CURVES

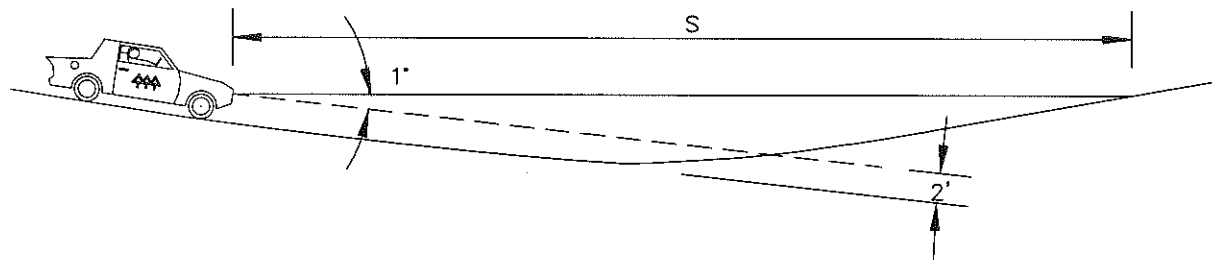
APPROVED BY:

Stewart E. Hornum

COUNTY ROAD ENGINEER

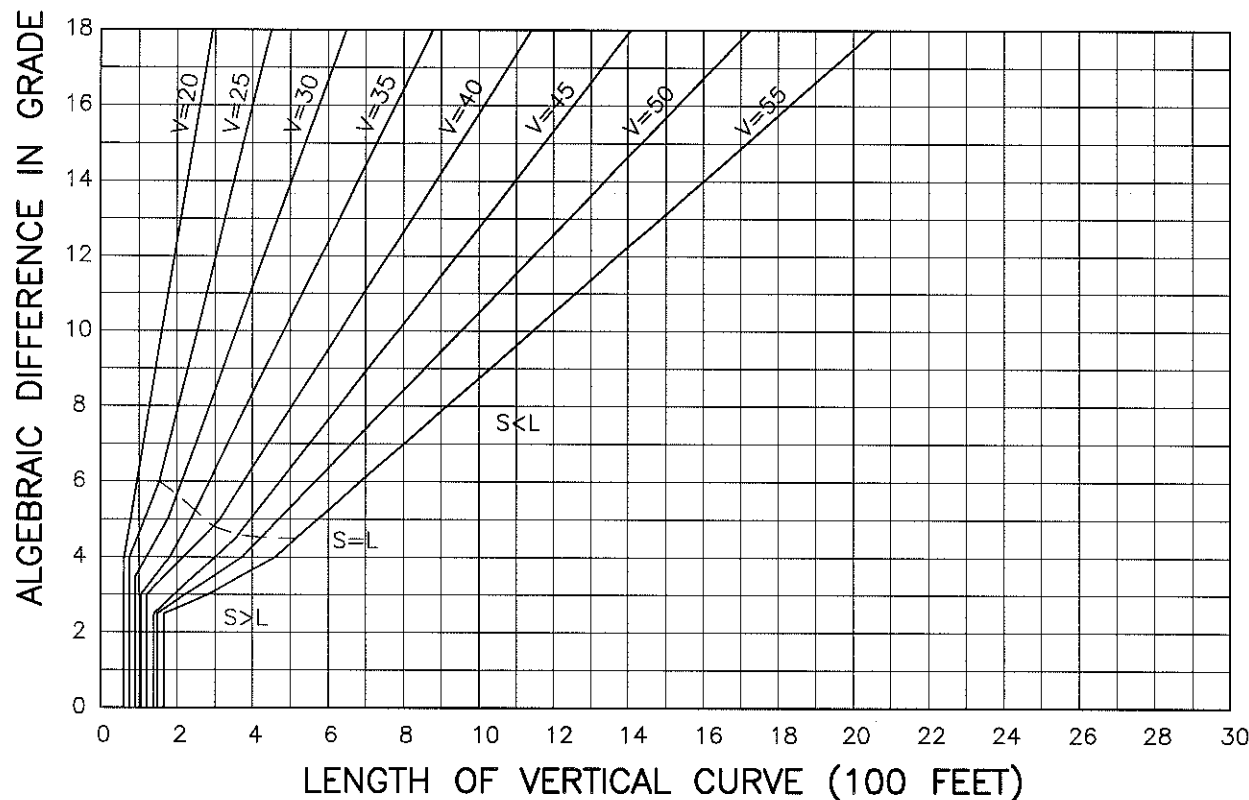
10-1-09

DATE



INCREASE FOR DOWNGRADES:
SEE TABLE 3-7 IN TEXT

WHEN $S > L$	WHEN $S < L$
$L = 2S - \frac{400 + 3.5S}{A}$	$L = \frac{AS^2}{400 + 3.5S}$
L = CURVE LENGTH (FEET) A = ALGEBRAIC GRADE DIFFERENCE (PERCENT) S = SIGHT DISTANCE (FEET)	



DESIGN SPEED (MPH)	DESIRABLE MINIMUM STOPPING DISTANCE (FEET)	MINIMUM LENGTH (FEET)
20	115	60
25	155	75
30	200	90
35	250	105
40	305	120
45	360	135
50	425	150
55	495	165

NOTES:

1. L = MINIMUM LENGTH OF CURVE BASED ON MINIMUM STOPPING SIGHT DISTANCE.

SEE TEXT CHAPTER 3



SNOHOMISH COUNTY PUBLIC WORKS

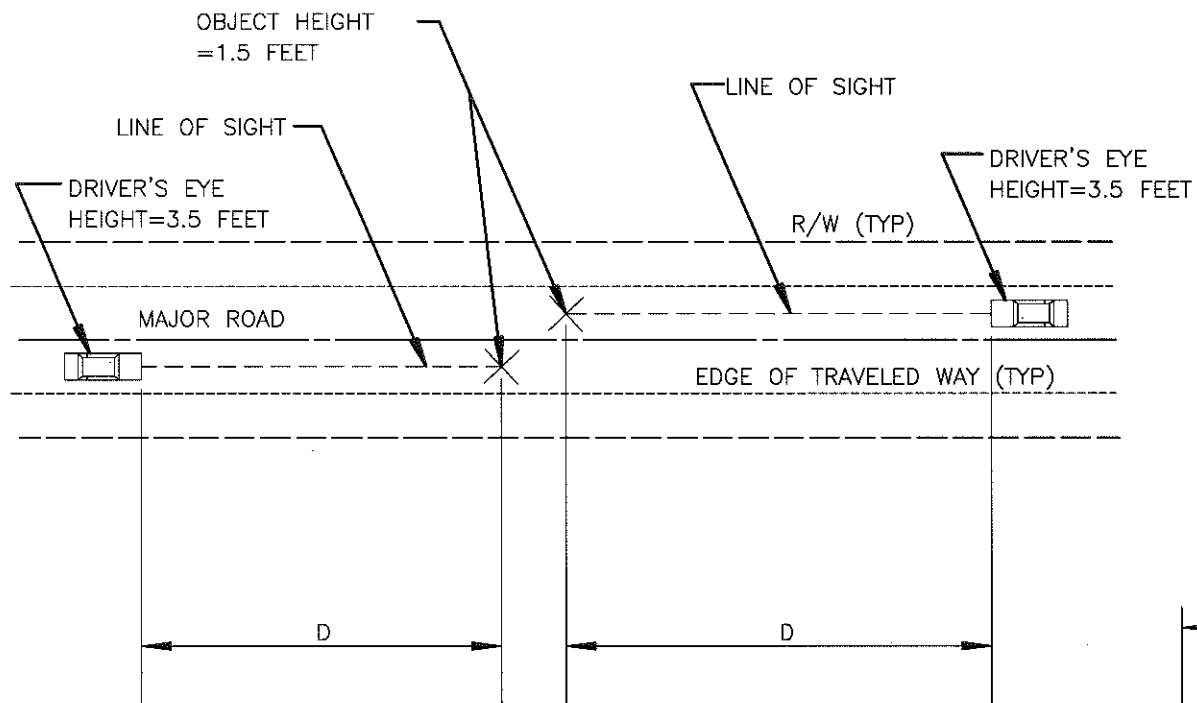
3-120

SAG VERTICAL CURVES

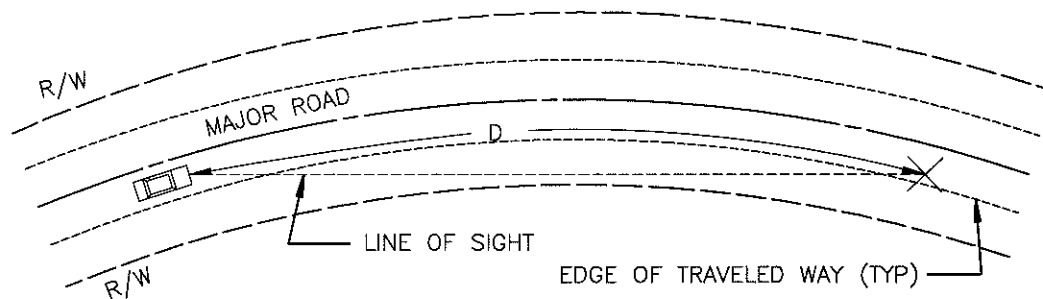
APPROVED BY:

Janet E. Horne
COUNTY ROAD ENGINEER

10-1-04
DATE



STOPPING SIGHT DISTANCE

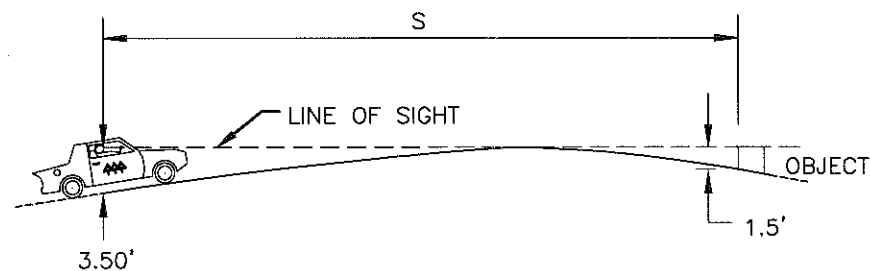


NOTES:

1. CREST VERTICAL CURVE CONDITION SHOWN. FOR EVALUATION OF CREST VERTICAL CURVE ALIGNMENT FOR STOPPING SIGHT DISTANCE REQUIREMENTS, REFER TO STD DWG 3-110. FOR EVALUATION OF SAG VERTICAL CURVE ALIGNMENT FOR STOPPING SIGHT DISTANCE REQUIREMENTS, REFER TO STD DWG 3-120.

SEE TEXT SECTION 3-07 & 3-08.

D=STOPPING SIGHT DISTANCE



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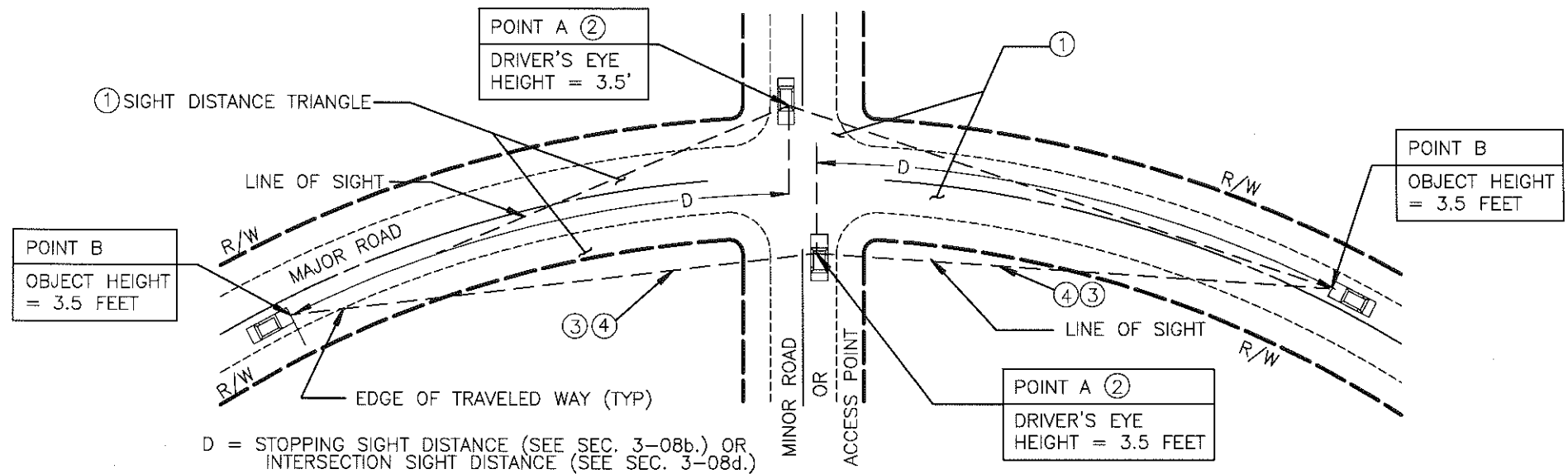
SNOHOMISH COUNTY PUBLIC WORKS

3-130

STOPPING SIGHT DISTANCE

APPROVED BY:

Sharon E. Morrison 2-25-03
COUNTY ROAD ENGINEER DATE



NOTES:

1. AT ANY INTERSECTION OR ACCESS POINT CONNECTION, THERE MUST EXIST CLEAR SIGHT TRIANGLES, FREE OF SIGHT OBSCURING OBJECTS. UNOBSTRUCTED LINES OF SIGHT MUST BE PROVIDED FROM A POINT ON THE MINOR ROAD 15 FEET BEHIND THE EDGE OF TRAVELED WAY (POINT A) TO ALL POINTS IN THE TRAVELED WAY INCLUDED IN THE CLEAR SIGHT TRIANGLES. THE BASE OF EACH CLEAR SIGHT TRIANGLE SHALL BE AT LEAST EQUAL TO THE STOPPING SIGHT DISTANCE D.
2. THE DRIVER'S EYE TO DETERMINE LINE OF SIGHT AT INTERSECTIONS IS 3.5 FEET ABOVE THE MINOR ROAD PAVEMENT, WITH AN OBJECT HEIGHT OF 3.5 FEET ABOVE THE MAJOR ROAD PAVEMENT.
3. THE AREA WITHIN THE CLEAR SIGHT TRIANGLE MUST BE FREE FROM ANY SIGHT OBSCURING OBJECTS. GROUND SHALL BE REGRADED AND VEGETATION TRIMMED OR REMOVED SO THAT NO OBJECT PROTRUDES CLOSER THAN 18 INCHES TO THE LINE OF SIGHT BETWEEN THE MINOR ROAD/ACCESS POINT AND THE MAJOR ROAD.
4. AREA WITHIN THE CLEAR SIGHT TRIANGLE BUT OUTSIDE OF EXISTING PUBLIC RIGHT-OF-WAY SHALL EITHER BE ACQUIRED AS NEW PUBLIC RIGHT-OF-WAY OR A SIGHT DISTANCE EASEMENT RECORDED FOR FUTURE COUNTY MAINTENANCE.

SEE TEXT SECTION 3-08.



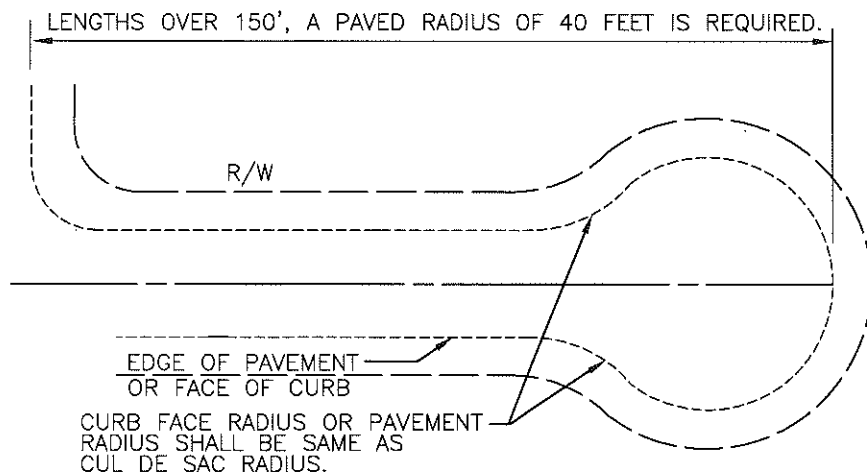
SNOHOMISH COUNTY PUBLIC WORKS

3-140

CLEAR SIGHT TRIANGLES

APPROVED BY:

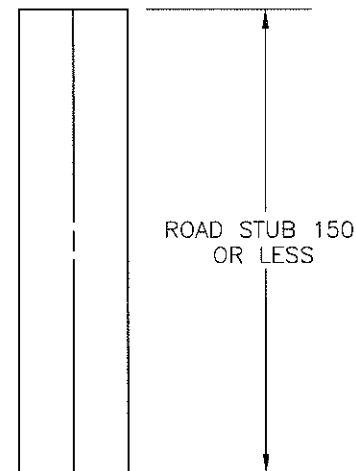
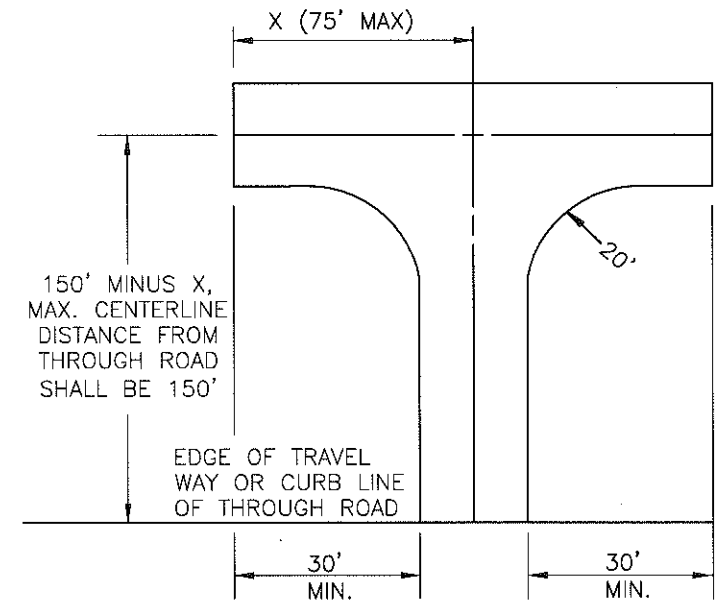
Stanley L. Morrison 10-1-04
COUNTY ROAD ENGINEER DATE



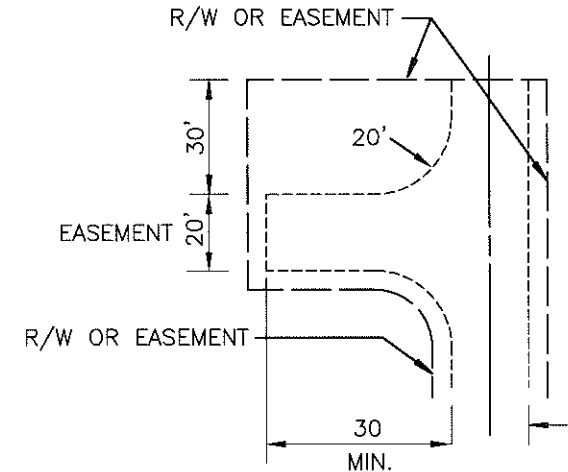
CUL-DE-SAC (PERMANENT)

NOTES:

1. ROAD WIDTH AND PAVEMENT SECTION SHALL BE AS SPECIFIED FOR EACH CLASS OF ROAD. REFER TO SECTION 3 AND STANDARD DRAWINGS 3-010 THROUGH 3-060.
2. LENGTH OF ROAD END IS MEASURED FROM THE FACE OF CURB LINE (EXTENDED) OF THE PREVIOUS INTERSECTING ROAD.
3. NO DRIVE THROUGH CUL DE SACS ARE ALLOWED.
4. HAMMERHEAD TURNAROUNDS ARE ALLOWED ONLY UPON APPROVAL OF THE FIRE MARSHAL AS A TEMPORARY TURNAROUND.
5. PERMANENT ROAD ENDS SHALL INCLUDE PEDESTRIAN FACILITIES IN URBAN AREAS OR WHERE THESE FACILITIES ARE PROVIDED ALONG THE ROAD LEADING TO THE PERMANENT ROAD END. PEDESTRIAN FACILITIES ARE NOT REQUIRED ALONG ROADS 150 FEET OR LESS IN LENGTH.
6. ROADS 150 FEET OR LESS MAY END IN A ROAD STUB. HOWEVER, IF FOUR OR MORE ACCESS POINTS ARE LOCATED WITHIN 50 FEET OF THE ROAD END, THEN A CUL-DE-SAC WITH A MINIMUM PAVED RADIUS OF 30 FEET IS REQUIRED.
7. PLANTER STRIPS MAY BE INSTALLED, BUT ARE NOT REQUIRED, AROUND PERMANENT OR TEMPORARY ROAD ENDS. SEE TEXT SECTION 3-10



ROAD STUB



HAMMERHEAD (TEMPORARY)



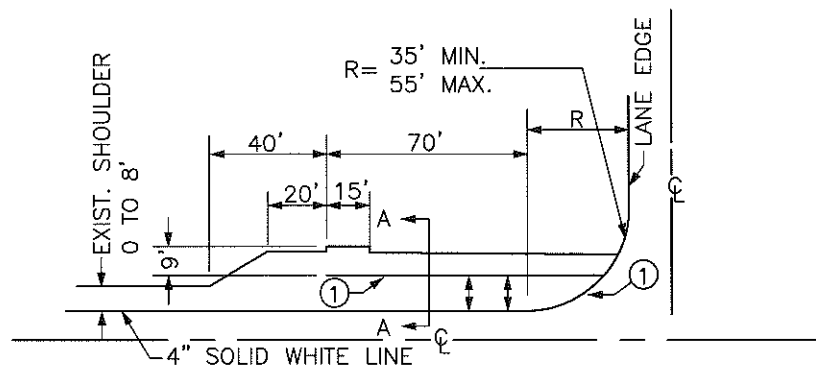
SNOHOMISH COUNTY PUBLIC WORKS

3-150

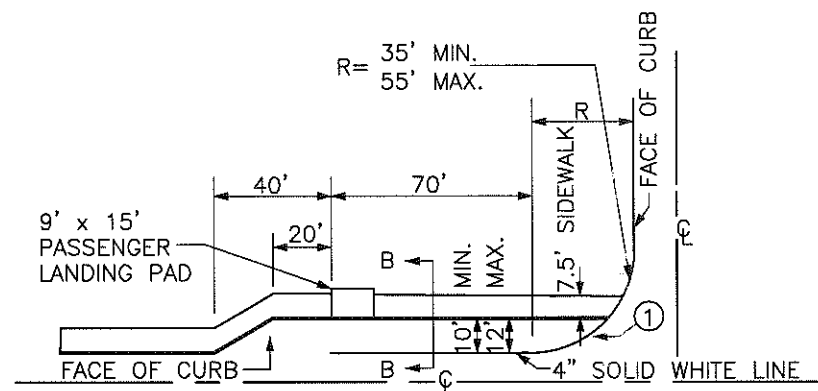
ROAD ENDS

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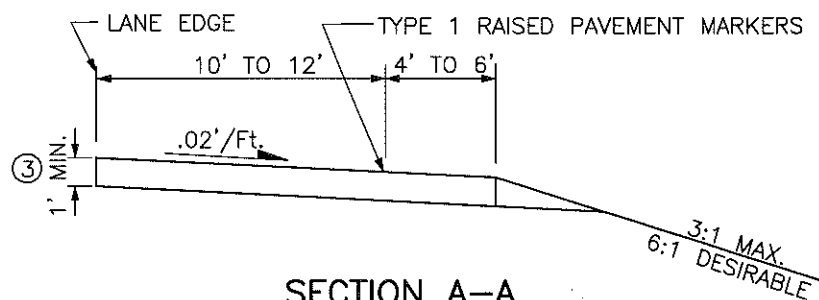
Stewart E. Morrison 10-1-04
COUNTY ROAD ENGINEER DATE



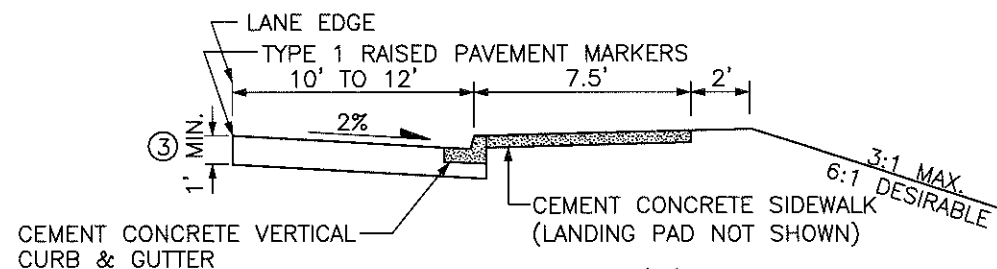
STD FARSIDE BUS PULLOUT ②
(SHOULDER SECTION)



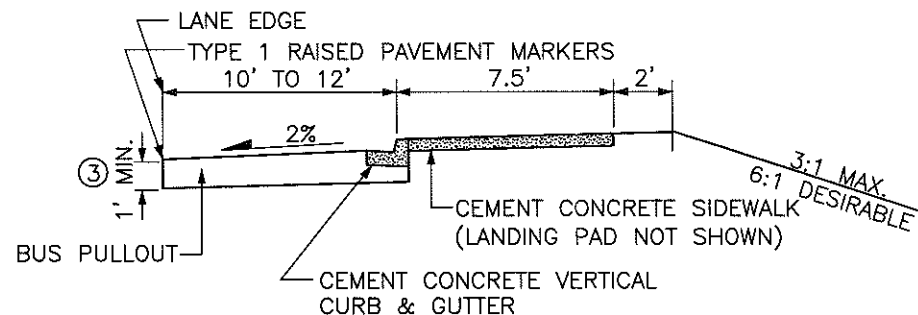
STD. FARSIDE BUS PULLOUT ②
(CURB SECTION)



SECTION A-A



SECTION B-B (1)



SECTION B-B (2)

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NOTES:

1. TYPE 1 RAISED PAVEMENT MARKERS, 3' O.C. SEE WSDOT/APWA SPECIFICATIONS.
2. FARSIDE BUS PULLOUTS ARE PREFERRED. FOR DESIGN GUIDANCE RELATIVE TO NEARSIDE AND MIDDLE BLOCK BUS PULLOUTS, SEE THE WSDOT DESIGN MANUAL, CHAPTER 1060.
3. SEE TEXT SECTION 3-13 AND STD DRAWINGS 3-010 THROUGH 3-065 FOR PAVEMENT SECTIONS.



SNOHOMISH COUNTY PUBLIC WORKS

3-160

BUS PULLOUTS

APPROVED BY:

Steu E. ... 2.28.03
COUNTY ROAD ENGINEER DATE